SUPPLEMENTARY FILES. *The GULP study*

GLUCOCORTICOID TAPERING AND ASSOCIATED OUTCOME IN PATIENTS WITH NEWLY DIAGNOSED SYSTEMIC LUPUS ERYTHEMATOSUS: THE REAL-WORLD GULP OBSERVATIONAL PROSPECTIVE STUDY.

Supplementary Table 1. SLICC/Damage Index items are categorized as certainly or probably glucocorticoid (GC) related and GC-unrelated according to previous definitions**.** The certainly or probably categories are considered glucocorticoid together as GC-related.

DAMAGE DOMAIN	ITEMS CERTAINLY GC-RELATED	ITEMS PROBABLY GC-RELATED	ITEMS GC-UNRELATED
OCULAR	Cataract	-	Retinal change
NEUROPSYCHIATRIC	-	Cognitive impairment Psychosis Cerebrovascular accident	Seizures Transverse myelitis Cranial or peripheral neuropathy
RENAL	-	-	Glomerular filtration rate<50% Proteinuria ≥3.5 gm/24hours End-stage renal disease
PULMONARY	-	-	Pulmonary hypertension Pulmonary fibrosis Shrinking lung Pleural fibrosis Pulmonary infarction
CARDIOVASCULAR	-	Angina or coronary artery bypass Myocardial infarction	Cardiomyopathy Valvular disease Pericarditis for six months, or pericardiectomy
PERIPHERAL VASCULAR	-	Claudication for six months Minor tissue loss (pulp space) Significant tissue loss	Venous thrombosis
GASTROINTESTINAL	-	-	Infarction or resection of bowel below duodenum spleen, liver, or gall bladder ever, Mesenteric insufficiency Chronic peritonitis Stricture or upper gastrointestinal tract surgery ever
MUSCULOSKELETAL	Avascular necrosis Osteoporosis with fracture or vertebral collapse	Osteomyelitis Muscle atrophy or weakness	Deforming or erosive arthritis
SKIN	-	-	Scarring chronic alopecia. Extensive scarring or panniculus. Skin ulceration
MISCELLANEA	-	Diabetes	Malignancy Menopause

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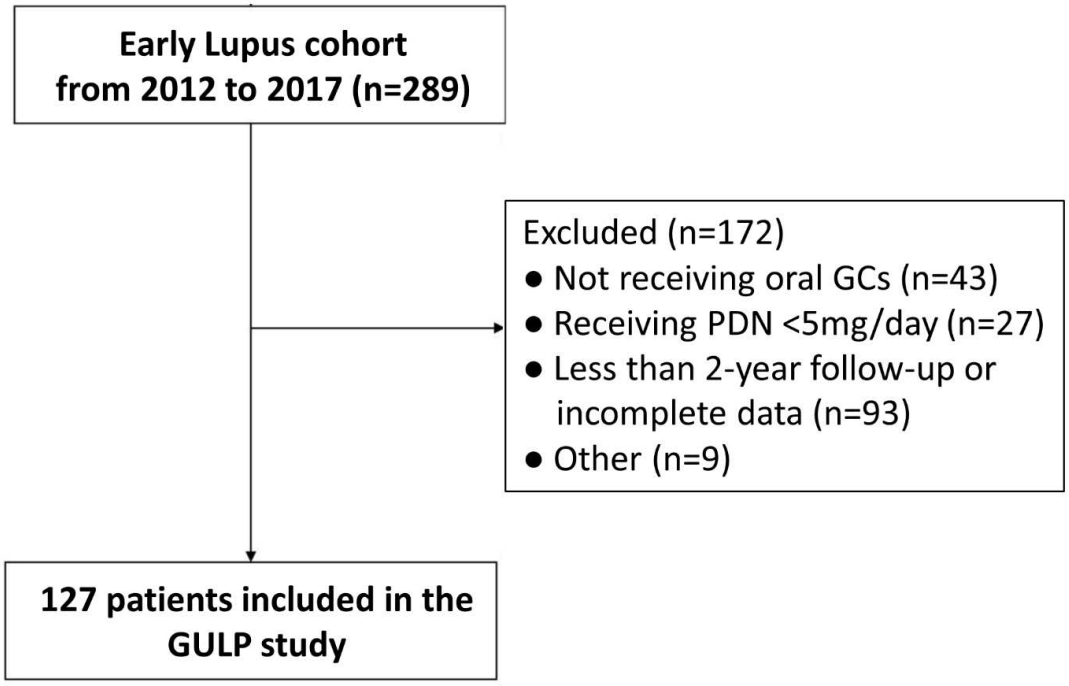
Supplementary Figure 1. Study flow diagram.



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Supplementary Table 2. Attrition analysis with descriptive data for available baseline variables on included vs. excluded persons showed no major differences between groups. Patients with a baseline dose of prednisone above 5mg but with insufficient information on visits (lost to follow-up within two years or incomplete data) were used for the comparison.

Features	**Patients included (n=127)**	**Patients excluded (n=93)**	**P-value**
Age, mean (±SD**)**	36.7 (13.4)	37.3 (15.6)	0.958
Female	105 (82.7%)	84 (91.3%)	0.102
< 1 year elapsed since the onset of SLE symptoms	30 (24%)	32 (34.8%)	0.113
Clinical phenotypes according to BILAG domains			
Constitutional	58 (45.7%)	32 (35.2%)	0.157
Mucocutaneous	67 (53.2%)	48 (52.2%)	0.993
Neuropsychiatric	11 (8.7%)	5 (5.4%)	0.52
Musculoskeletal	78 (61.4%)	59 (64.1%)	0.789
Cardiorespiratory	26 (20.5%)	22 (23.9%)	0.658
Gastrointestinal	7 (5.5%)	3 (3.3%)	0.525
Ophthalmic	0 (0%)	3 (3.3%)	0.073
Renal	46 (36.2%)	33 (35.9%)	1
Hematological	55 (43.3%)	37 (40.2%)	0.75
Serologic features			
Anti-dsDNA	101 (80.8%)	69 (80.2%)	1
Anti-Ro/SSA	41 (35.3%)	44 (51.8%)	**0.029**
Anti-La/SSB	20 (17.4%)	13 (16%)	0.957
Anti-RNP	31 (26.7%)	19 (23.8%)	0.762
Anti-Sm	30 (26.1%)	18 (22.8%)	0.723
Antiphospholipid Antibodies*	27 (26.2%)	17 (23.6%)	0.831
C3 complement fraction(mg/dl), median (IQR)	69 (50 - 91)	73 (51 - 97)	0.447
C4 complement fraction (mg/dl), median (IQR)	11 (6 - 15)	9 (7 - 17)	0.903
ECLAM (≥3)	66 (52.8%)	45 (49.5%)	0.727
SDI, mean (±SD)	0.2 (0.6)	0.3 (0.8)	0.766
Comorbidities			
Hypertension	17 (13.4%)	23 (25%)	**0.044**
Dyslipidemia	17 (13.4%)	14 (15.4%)	0.826
Diabetes	4 (3.1%)	2 (2.2%)	1
Smoking (ever)	30 (68.2%)	23 (65.7%)	1
Prednisone (prior to enrolment)	21 (16.5%)	17 (20%)	0.644

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Supplementary Table 3. Details of medications prescribed at baseline and ongoing after 24 months of follow-up.

Medication	Baseline	End of follow-up
Prednisone	127 (100)	110 (86.6)
Hydroxychloroquine	98 (77.2)	101 (79.5)
Mycophenolate	32 (25.2)	37 (29.1)
Methotrexate	21 (16.5)	25 (19.7)
Azathioprine	17 (13.4)	19 (15.0)
Calcineurin inhibitors	3 (2.4)	9 (7.1)
Cyclophosphamide	11 (8.7)	3 (2.4)
Thalidomide	0 (22.6)	1 (0.8)
Belimumab	5 (3.9)	10 (7.9)
Rituximab	4 (3.1)	3 (2.4)
Abatacept	0 (0)	1 (0.8)

Numbers are absolute values (numbers in brackets are percentages).

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Supplementary Table 4. The percentage of prednisone dose tapering in the whole cohort of newly diagnosed SLE patients according to the different intervals of mean prednisone daily dose (one-way ANOVA p<0.001).

Prednisone daily dose (mg)	number of visits (n=256)	% PDN dose Tapering (Mean ± SD)
>30	28	61.1% (±20.9%)
≤30 but >15	55	53.3 (±22.4%)
≤15 but >7.5	93	44.2* (±20.8%)
≤7.5 but ≥5	59	39.7*,° (±17.3%)
<5	21	52.3 (±18.0%)

*p<0.01 compared to daily prednisone dose >30 mg/day by one-way ANOVA with post-test comparing all column pairs between groups.

°p<0.01 compared to daily prednisone dose <30 but ≥15 by one-way ANOVA with post-test comparing all column pairs between groups.

Supplementary Table 5. The rates (%) of changes in GCs doses over the follow-up time. Significance p-values calculated according to the Cochran-Armitage test with one degree of freedom are reported.

	6-month	12-month	18-month	24-month	P
Tapering	70.1	48.1	46.5	37.0	<0.001
Unchanging	13.4	29.9	33.9	36.2	<0.001
Increasing	14.1	18.1	12.6	13.4	0.574
Discontinuing	2.4	3.9	7.0	13.4	<0.001

Supplementary Table 6. The rates of changes in GCs doses, grouped by prednisone daily dose, in the whole cohort of 127 newly diagnosed SLE patients.

Whole Cohort	Tapering (n=256)	Unchanging (n=144)	Increasing (n=72)	Discontinuing (n=21)
>30 mg/d (n=30)	29 (96.7)	0 (0)	1 (3.3)	0 (0)
≤30 and >15 mg/d (n=63)	55 (87.3)	3 (4.8)	4 (6.4)	1 (1.6)
≤15 and >7.5 mg/d (n=124)	93 (75.0)	18 (14.5)	11 (8.9)	2 (1.6)
≤7.5 and ≥5 mg/d (n=136)	59 (43.4)	54 (39.7)	19 (14.0)	4 (2.9)
<5 and ≥2.5 mg/d (n=101)	17 (17.2)	48 (48.5)	29 (28.7)	7 (8.1)
<2.5 and >0 mg/d (n=39)	3 (7.3)	21 (56.1)	8 (19.5)	7 (17.1)

Numbers are absolute values (numbers in brackets are percentages).